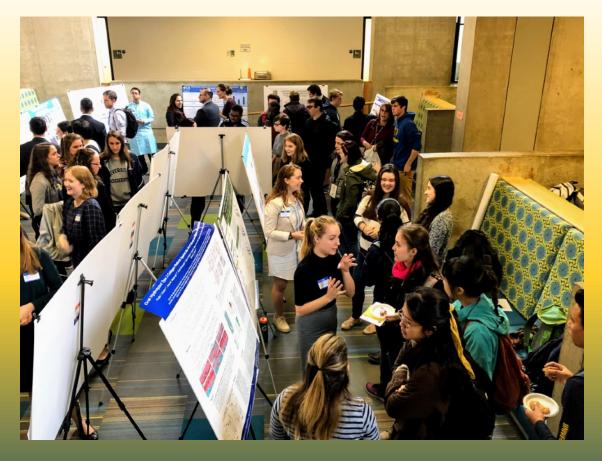
### UPBM E-NEWSLETTER Undergraduate Program in Biology & Medicine



#### Hello UPBM!

The fall semester is going by with a blink of an eye. Keep pushing through and make sure to start planning ahead for the spring semester, it will be here before you know it!

We are always curious about what exciting opportunities our majors have been apart of, so please think of sending us a blurb of what you have been up to. Submissions will appear in future editions of the UPBM e-newsletter. Those interested should send their stories and pictures by e-mail to <u>BioDeptUgOffice@ur.rochester.edu</u>.

Like our Facebook page for the latest information on UPBM events, opportunities, and important deadlines!



University of Rochester Undergraduate Program in Biology and Medicine UPBM

### Links

- Biology Department Newsletter
- 2018 Poster Session
- UPBM E-News Archive
- UPBM Home Page
- UPBM Facebook Page



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J. Adam Fenster / University of Rochester

## **UPBM Poster Session**

Many thanks to the eighteen UPBM majors who presented their research in the 2018 UPBM Poster Session held on October 5th, as well as those who came out to support their colleagues.

The event was a huge success, and we are hoping to get even more presenters next year!

**Relive the Magic** 



### Presenters of Research

Joshua Brown '19, BS BBC

Stephanie Busch '19, BS BBC

Hayley Chang '19, BS BCD

Abhishek Dedhe '19, BS BCB

Alessandra DiMauro '10, BA BIO

Maria Cristina Gil Diaz '20, BS BNS

Madeline Hoey '19, BS BBC

Colleen Maillie '20, BS BCB

Ena Oreskovic '19, BS BMG

Krista Pipho '19, BS BBC Haani Qudsi '19, BS BBC Patrick Saba '19, BA BIO Sarah Sandkuhler '19, BS BNS Iyad Sayed Issa '19, BS BBC Kayla Scinto '19, BS BCB Anna Stolarczyk '19, BS BMB

### Society of Undergraduate Biology Students SUBS

### SUBS Study Group

Every Wednesday 7-8pm Genesee Hall 323

Study with SUBS!

This is a collaborative study space for UPBM majors of different levels and backgrounds. This is not tutoring hours, but many peer advisors and TA's will be in attendance.

# Trick-or-Treat Meet-and-Greet

The Society of Undergraduate Biology Students (SUBS) together with the Undergraduate Chemistry Council (UCC) held the Hutchison Hall Trick-or-Treat Meet-and-Greet on Friday, October 26th. Students visited the instructors listed on the passports provided and were able to network while enjoying candy, cider, and donuts.

Related: Society for Undergraduate Biology Students Website







# Gwen M. Greene Center

#### Update your HANDSHAKE Profile

Handshake is your career connection resource, allowing you to:

- Schedule an advising appointment with a Career Advisor
- Find internship and employment opportunities based on your interests
- Discover when employers are heading to campus
- Connect with alumni and employers
- Attend events and programs in your field of interest

## To get tailored information on events and job postings in your area of interest, be sure to select your 'career interest' on your profile.

#### THE MELIORA COLLECTIVE



The Collective is the University's newest online community for professional growth and exploration.

Students can identify mentors, share insights and gain information related to academic and career interests, and network with alumni and other members of the University community. Built by students, for students, The Collective allows you to tap into the power of the University of Rochester network and forge your own path.

Join the Collective by making a profile at thecollective.rochester.edu

### Greene Center Events

#### What About Me?: Making Academic & Career Decisions Thursday, Nov. 1st 5-6pm More Information Columbia University Medical Center Public Health Information Session Friday, Nov. 2nd 3:30-4:30 More Information Health & Human Services Career Fair Tuesday, Nov. 6th 2-4pm More Information UR School of Medicine and Dentistry Graduate Programs Information Session Tuesday, Nov. 6th 5-6pm More Information

Bio Career Webinar: How to Identify Opportunities and the Best Practices for Job Searching Wednesday, Nov. 7th 1-2pm More Information Health Professions Admissions Panel Thursday, Nov. 8th 5:30-7:30pm More Information Sophomore Internship Night Tuesday, Dec. 4th 5:30-6:30pm More Information Bio Careers Webinar: What Companies Look for When Evaluating Talent Wednesday, Dec. 5th 1-2pm More Information

Check out all the events on their website.



### Registration Advising, Dates, and Times

#### Advising Week: October 29-November 2

Check out the UPBM advising webpage for information on track advisors. Also, look at the UPBM peer advisors webpage.

Open Office Hours for Biochemistry Majors Thursday, Nov 1, 3-4pm URMC 3-7415 First-year and sophomore students are encouraged to come and speak with Dr. Elizabeth Grayhack. Directions to Dr. Grayhack's Office

#### **Registration Schedule for Spring 2019**

Monday, Nov. 5: **Class of 2019** Opens at 8am and continues through 7am November 6.

Tuesday, Nov. 6th: **Class of 2020** Opens at 8am through 7am November 7.

Wednesday, Nov. 7: Class of 2021

- 8-9:15am for DOB 10/1-12/31 (Group 4)
- 9:30am-10:45am for DOB 1/1-3/31 (Group 1)
- 11-12:15am for DOB 4/1-6/30 (Group 2)
- 12:30pm-1:45pm for DOB 7/1-9/30 (Group 3) Registration reopens for the entire class of 2021 from 2pm-9:30am on November 8.

#### Thursday, Nov. 8: Class of 2022

- 9:45-11am for DOB 4/1-6/30 (Group 2)
- 11:15am-12:30pm for DOB 7/1-9/30 (Group 3)
- 12:45-2pm for DOB 10/1-12/31 (Group 4)
- 2:15-3:30pm for DOB 1/1-3-31 (Group 1)
  - Registration reopens for the entire class of 2022 from 3:45pm until 9am on November 9.

Online registration is open to **ALL undergraduates at 9:30am on Friday, November 9th** until the end of the second week of classes (January 30th, 2019)

For more information on the registration visit the Registrar's Webpage.



### Undergraduate Research Conferences Information & Deadlines

#### National Conference on Undergraduate Research NCUR NCUR Travel Application opens on November 1st

National Conference on Undergraduate Research (NCUR) is an annual conference for primary research and artistic performance by undergraduate students, encompassing the natural and social sciences, the humanities, the arts, and engineering. Each year, NCUR hosts around 3,500-4,000 students across the world.

Online Registration opens on January 28th, 2019, the NCUR 2019 Conference is held from Wednesday, April 10th-Saturday, April 13th at Kennesaw State University.

UR's Office of Undergraduate Research will can assist with funding in the NCUR Travel Award. The application will open on Thursday, November 1st and will close at midnight on Sunday, November 25th.

More Information: NCUR Website NCUR 2019 Timeline



#### National Collegiate Research Conference at Harvard NCRC Application Due December 1st

The National Collegiate Research Conference (NCRC) is a platform for undergraduates from around the country to share their interest in research. The multidisciplinary conference is open to all enrolled undergraduates in a college or university.

NCRC will take place from Thursday, January 24th-Saturday, January 26th at Harvard University.



More Information: NCRC Website Application FAQs

Want to learn more about research? Visit the Office of Undergraduate Research website.

# College Supplemental Funding

For Programs, Conferences, Competitions, and Events

The College Supplemental Fund Application allows students to request supplemental funding to attend or participate in academic, professional, or experiential programs.

Funding is available on a rolling basis, however, applications must be submitted at least three weeks in advance, or else they will not be considered. Relevant departments may be asked to contribute funding toward the overall need as indicated on the application. Students may request funds as individuals, or on behalf of a group. Only one representative from each group should complete an application.

The College Supplemental Fund Application is not intended to replace existing funding opportunities, such as the funding available from the Student Association Appropriations Committee (SAAC). Groups that would like to request funding from the Student Association are required to complete a separate application through the Campus Community Connection.

Interested in applying? Learn more on their website

# The Undergraduate Placement Program

The Undergraduate Placement Program (UR-UPP) is a support service that helps students navigate the process of preparing for research on campus or at URMC. We can help you:

- Learn practical ways to stand out as a research candidate
- Develop effective techniques for communicating professionally with faculty and research staff
- Search and apply for research opportunities in life and health science
- Get the most out of your research experience at Rochester

Visit the UR-UPP website to browse resources, advising services, and projects publicized by research faculty through UR-UPP's infrastructure. Subscribe to the biweekly newsletter to stay up-to-date on positions and on-campus events relevant to undergraduate researchers!

Visit their website here

### Upcoming Events 2018-2019

Friday, October 26th Tuesday, October 30th Friday, November 30th December (TBD) SUBS Halloween Event, 1-3pm Hutchison Hall Undergraduate Research Fair, 3-5pm, Feldman Ballroom SUBS Beach Day UPBM Pizza Break (around Reading Period)

# Start Thinking Ahead! Important Deadlines to Keep in Mind

### Spring 2019 Independent Research (395) Course

Allow UR undergraduate students to gain research experience in the laboratories of biological science labs (on River Campus or in the URMC) for academic credit during the fall and spring semesters.

Students will need to find a faculty research mentor who works within their area of interest and will agree to instruct a research course. Visit the UPBM website for tips on Finding a Research Mentor.

Once a mentor is found students will need to go through the process of registering the course within the first two weeks of the semester.

Although independent research is not a typical lecture hall experience, it does require defined objectives, learning outcomes, contact hours, and criteria for evaluation that is typically associated with any credit-bearing course.

The research associated with these courses must be rooted within the biological sciences and is non-clinical in nature. Although some scientific arguments may be inspired through clinical studies it is expected that the proposed research will yield data from experimentation that involves laboratory and/or computational methods that is performed and analyzed by the student enrolled in the course.

The research must be conducted under the supervision of a faculty research mentor who is a member of the UR "Teaching Faculty".

All 395 students are required to write and submit a final report or a poster. The poster option should be beneficial to undergrads who are looking for opportunities to present at various intellectual, social gatherings such as, The UPBM Poster Session or the National Conference on Undergraduate Research (NCUR), or the Undergraduate Research Expo, or any potential poster session that may be conducted at the medical center.

However, please note that students who are taking an independent research course for upper-level writing (395w) credit may not choose the poster option. If the course is being taken to satisfy a writing requirement, then the student will need to write a final report. Final reports of upper-level writing courses are expected to undergo a series of edits and rewrites that would ideally be done with the student and their research faculty incrementally throughout the semester. Students will have until the last day of final exams to upload a copy of their final report or poster to Blackboard.

Biological Science Independent Research Courses Require Submission of Two Online Forms:

1. UPBM Pre-Registration Form 2. Independent Study (IS) Form

Typically, students meet with their faculty in order to collect the information necessary to complete the paperwork.

Then students submit the UPBM Pre-Registration Form first and wait two to three business days to receive an approval e-mail. The information from the e-mail is then used by students to file an Independent Study (IS) Form with the College. It can take the College up to 10 business days to review and add Independent study credit to transcripts.

#### Spring 2019 Deadlines:

4 Credit 395 Courses: Should start course by Friday 1/25 ~Submit Online UPBM Pre-Registration form by Friday 2/1

~Submit Online CCAS Independent Study form by Friday 2/8

3 Credit 395 Courses: Should start course by Friday 2/8 ~Submit Online UPBM Pre-Registration form by Friday 2/15

~Submit Online CCAS Independent Study form by Friday 2/22

2 Credit 395 Courses: Should start course by Friday 3/1 ~Submit Online UPBM Pre-Registration form by Friday 3/8

~Submit Online CCAS Independent Study form by 3/15

#### \*Please note deadlines for Bio Sci courses are different from what is published on the CCAS Independent Study website.

Related:

- What is Independent Research?
- Credit Regulations
- Finding a Research Mentor
- How to Register
- Requirements
- Research Connections Newsletter

### Honors in Research

Students who have developed their skills in Biological research have the opportunity to receive honors by successfully writing and defending a thesis during their senior year. Officially declared UPBM majors with data of exceptional quality and a minimal biology GPA of 2.7 to qualify.

Candidates (seniors only) must have developed a novel body of work that includes publication quality data from which to generate a senior thesis. Also, candidates must successfully present and defend their senior thesis before a faculty examination committee.

The planing of a senior thesis begins before or at the beginning of the senior year. Students should consult both their major/track coordinator and research advisor before applying.

Research data obtained through Independent Research (395) courses, fellowships, internships, and voluntary work may be used to support the thesis. Also, research performed at other institutions may be used as long as the thesis is written under the supervision of a UR full-time faculty member.

Data collected from other institutions outside the university may be used to support a portion of the thesis; however, all facts and figures reported as results in the thesis must be derived by the candidate and must be part of the collaboration with the UR faculty who is overseeing the writing of the student's thesis.

Interested students and the faculty who is supervising their thesis must submit an Application for Candidacy online by Monday, March 4, 2019. The form will ask for some preliminary information, a summary of the thesis along with the student's and faculty's recommendations for 1 to 2 faculty to serve on the defense committee. All applications are reviewed and approved by the student's major advisor and the UPBM office. Further instructions on committee formation are available on the Application for Candidacy. Once the candidate's application is approved, the student must complete and submit a thesis to an evaluation committee approximately one week before the scheduled defense.

The defense consists of a 20-minute open presentation to a faculty committee followed by a private evaluation.

A defense committee for a senior thesis consists of three UR faculty members who work within a relevant field of student and are qualified to examine the candidate's thesis.

The research mentor serves on the committee and will need to provide at least 1-2 names of "Teaching Faculty" who work within a relevant field of student, are qualified to evaluate the thesis, and would be willing to serve. The candidate's advisor may also serve on the committee or may choose to delegate. Additionally, a fourth member may be added at the discretion of the student's advisor.

Please note that students do not need to register an Independent Research (395) course for a senior thesis unless necessary to complete experimentation.

Please visit the Honors in Research Website for more information on the senior thesis, defense committees, and planning timelines.

Eighteen students from the class of 2018 successfully wrote and defended a senior thesis. See UPBM E-Newsletter's June 2018 Edition for further details on last year's participants.

Related: Application for Candidacy Honors in Research Website 2018 Graduates with Honors in Research



# de Kiewiet Summer Fellowship 2019

Open to Junior UPBM Majors

The de Kiewiet fellowship is an annual summer program that allows students the opportunity to research for ten weeks in a biological science laboratory located either on River Camps or in the Medical Center during the summer between junior and senior year. Also, fellows will gain the experience of creating and presenting a poster of their research findings at the UPBM Poster Session in October following their summer fellowship.

The fellowship is open to officially declared UPBM majors in their junior year only. Take Five students are to eligible to apply to the fellowship in their fourth year.

The Undergraduate Program in Biology and Medicine (UPBM) includes the following tracks:

BA BIO (Biology) BS BBC (Biochemistry) BS BCD (Cell and Developmental Biology) BS BCB (Computational Biology) BS BEB (Ecology and Evolutionary Biology) BS BMB (Microbiology) BS BMG (Molecular Genetics) BS BNS (Neuroscience)





- 1. Find a Research Mentor
- 2. Email "Letter of Intent to Apply" to Marianne Arcoraci by Friday, March 1st.
- 3. Upload to Blackboard by Monday, March 18th:
  - 1. Formal Scientific Proposal
  - 2. Summary of Relevant Professional Experience
  - 3. Summary of "Research and Career Goals"
- 4. Ask the faculty who have agreed to mentor the project to submit a Letter of Support and Statement of Authorship directly to the UPBM Administrator by Monday, March 18th.
- 5. Ask another faculty member (preferably within the scientific field) to write a Letter of Support and send it directly to the UPBM Administrator by Monday, March 18th.

The UPBM Advising Committee will review and rank all proposals. Decisions are usually communicated by mid April. More Information

### Opportunities

Alaskan Observers North Pacific Ground Fish Observer North Pacific Ground Fish Observer Position Openings

Albert Einstein College of Medicine Summer Undergraduate Research Program

Amgen Scholars Scholars Program

Amgen Scholars Program Homepage

Case Western Reserve University Summer Programs

Cincinnati Children's Hospital Summer Undergraduate Research Fellowship (SURF)

City Internships Program Overview

Cleveland Clinic Center for Reproductive Medicine Summer Internship Program

Cold Spring Harbor Watson School of Biological Sciences Summer Undergraduate Research Program

Columbia University / Barnard College Amgen Scholars Summer Research Program

Cornell University Boyce Thompson Institute for Plant Research Internships

Council on Undergraduate Research National Conference on Undergraduate Research (NCUR)

Davis Projects for Peace Kathryn W. Davis Projects For Peace

Deutscher Akademischer Austausch Dienst (DAAD) Paid Research Internships in Germany Duke University Teacher Fellowship Program | Science and Leadership Award

EPA Internships Medical Research and Health Science Internships Available in Europe!

Fred Hutch Summer Undergrad Research Program

Fulbright Scholarship US Student Program

Gerstner Sloan-Kettering Summer Undergraduate Research Program

GEHI Ghana Health and Education Initiative

Goldwater (Barry) Scholarship & Excellent in Education Program

Harvard School of Public Health Summer Program in Biological Sciences Public Health

Hutchinson (Fred) Cancer Research Center Summer Undergraduate Research Program

Hutchinson (Fred) Cancer Research Center Internships in Scientific Research or Medicine

Homeland Security DHS Education Programs HS-STEM Summer Internship Program

Institute for Health Metrics and Evaluation (IHME) Post-Bachelor Fellowship

Journal of Young Investigators Author Guidelines Requirements

Louisiana University Marine Consortium Summer Field Course Information

MATCH Education Teacher Residency

Mayo Clinic Summer Undergraduate Research Fellowship

### Opportunities

#### MedLife Volunteers

Michigan State Veterinary Enrichment Summer Program

National Collegiate Research Conference (NCRC) NCRC 2018 Applications

Nemours/Alfred I. duPont Hospital for Children and Nemours Office of Health Equity and Inclusion Summer Undergrad Research Scholarship

One Heart Source Volunteer Opportunities in Africa

PIRG - Job Openings for Graduating Seniors Jobs

Roswell Park Cancer Institute Summer Research Programs

Southern Teaching Agency Website

SUNY Oswego Global Laboratory Summer Science Research Abroad

Teach for America Opportunities

Texas Tech University Health Sciences Center Summer Accelerated Biomedical Research Internships

The UNCF Merck Science Initiative Science Scholarships and Fellowships

University of Iowa Summer Undergraduate MSTP Research Program

University of Michigan Summer at Michigan for Undergraduate Research Training University of Missouri Summer Research Programs Cell and Molecular Biology Summer Research Positions

University of Notre Dame Environmental Research Center Research

University of Rochester Undergraduate Research Exposition (URE)

University of Rochester, RC Libraries Research Initiative Award for Undergraduates

University of Rochester, UPBM deKiewiet Summer Fellowship

University of Texas South Western Summer Undergraduate Research Fellowship SURF

University of Utah Undergraduate Research Programs

University of Virginia / Mountain Lake Biological Station Summer Research Experiences of Undergraduates

Upstate Medical University Research Programs in Biomedical Sciences Fellowship Program

University of Missouri Alcohol Research Training Summer School/ Internship

West Virginia University Center for Neuroscience Summer Undergraduate Internship SURI Program

The Woodrow Willson National Fellowship Foundation Teaching Fellowships

World Teach Programs

### **Graduate Studies**

Albert Einstein College of Medicine Biomedical Sciences

Arizona State University Science and Technology Policy

Berkley Nutritional Sciences & Toxicology

Cedars-Sinai Medical Center PhD in Biomedical and Transitional Sciences

Cornell University Ecology & Evolutionary Biology

Duke University Neurobiology

George Washington University Environmental Resource Policy Program

Harvard-School of Public Health PhD Program in Biological Sciences in Public Health

Indiana University Biochemistry Graduate Program

Louisiana State University Biological Sciences Pharmacology & Experimental Therapeutics

Michigan State University College of Veterinary Medicine

Penn State College of Medicine PhD Programs | MS Programs

Seton Hill University MS Biology | MS Microbiology PhD Molecular Biology

St. Jude Graduate School Biomedical Sciences

Stony Book University Neuroscience PhD Program Neuroscience Master's Program

Texas Tech University Biomedical Sciences Programs University at Buffalo PhD Biomedical Science

University of California, Los Angeles Ecology & Evolutionary Biology

University of Colorado Structural Biology & Biochemistry

University of Iowa College of Medicine Programs

University of Maryland Biophysics Program

University of Massachusetts Dartmouth Marine Science and Technology

University of Michigan Medical School Programs

University of Pittsburg Biological Sciences

University of Rochester Graduate Program

University of South Florida Graduate Programs

University of Texas South Western Biomedical Sciences Programs

University of Utah Bioscience Programs

University of Virginia Graduate Program

Upstate Medical University Graduate Studies

Van Andel Institute PhD Cell and Molecular Genetics

Vanderbilt University Neuroscience Graduate Program

Watson School of Biological Sciences Ph.D. Program

### Helpful Links

Athletics Biology Department Center for Study Abroad & Interdepartmental Programs Counseling Center Dining Directory English Language Program Gwen Green Career and Internship Center Facilities Journal of Undergraduate Research (JUR) Kapalan Test Prep and Admissions Libraries Pre-Med and Allied health Professions Advising Research Connections Newsletter Rochester Academy of Science Undergraduate Program in Biology & Medicine Undergraduate Research Office University Health Services

#### Feedback

Please feel free to send submissions and/or feedback to help improve this newsletter to the UPBM Administrator.

What type of things are you looking for? What do you and your colleagues benefit from, find interesting, helpful, and/ or funny that is generally related to the college experience. Pictures of events or activities pertaining to UPBM are also beneficial.

UPBM e-news is produced by the Department of Biology Undergraduate Program in Biology & Medicine during the academic year. You are receiving this message as a member of the UPBM community. Please note that the opportunities noted in this issue are not an endorsement. Do not forward this newsletter to other distribution lists. If you are receiving multiple copies or believe this message was sent to you in error, please contact the UPBM

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